

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"20070129553"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:38
L2	2	2,2-dimethyl-1, 3-dioxalane-4-methanol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:39
L3	4	I1 or I2	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:45
L4	0	2,2-dimethyl-1, 3-dioxalane-4-carboxaldehyde	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:39
L5	59	glyceraldehyde adj acetonide	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:44
L6	3	I5 and tempo	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:44
L7	0	I4 and tempo	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:45
L8	3	I3 and tempo	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:48
L9	1085	(549/229, 546/216).ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:48

EAST Search History

L10	7	I9 and glyceraldehyde	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:50
L11	1	I10 and tempo	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:49
L12	23	tempo and glyceraldehyde	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:54
L13	533	TCCA	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:54
L14	92	dcdmh	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:54
L15	606	I13 or I14	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:55
L16	6	I15 and tempo	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	OR	ON	2007/09/21 16:55

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NEWS 5 JUL 02 CA/CAplus enhanced with utility model patents from China
NEWS 6 JUL 16 CAplus enhanced with French and German abstracts
NEWS 7 JUL 18 CA/CAplus patent coverage enhanced
NEWS 8 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9 JUL 30 USGENE now available on STN
NEWS 10 AUG 06 CAS REGISTRY enhanced with new experimental property tags
NEWS 11 AUG 06 BEILSTEIN updated with new compounds
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NEWS 19 SEP 13 FORIS renamed to SOFIS
NEWS 20 SEP 13 INPADOCDB enhanced with monthly SDI frequency
NEWS 21 SEP 17 CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 22 SEP 17 CAplus coverage extended to include traditional medicine patents

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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FILE LAST UPDATED: 20 Sep 2007 (20070920/ED)

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=> e 2,2-dimethyl-1,3-dioxolane-4-carboxaldehyde

| | | |
|-----|---------|--|
| E1 | 1 | 1ZZ1R/BI |
| E2 | 9298827 | 2/BI |
| E3 | 0 | --> 2,2-DIMETHYL-1,3-DIOXOLANE-4-CARBOXALDEHYDE/BI |
| E4 | 2402530 | 20/BI |
| E5 | 12 | 20-10-0/BI |
| E6 | 1 | 20-10-1/BI |
| E7 | 3 | 20-10-2/BI |
| E8 | 3 | 20-10-3/BI |
| E9 | 4 | 20-10-4/BI |
| E10 | 8 | 20-10-5/BI |
| E11 | 4 | 20-10-6/BI |
| E12 | 1 | 20-10-7/BI |

=> e 2,2-dimethyl-1,3-dioxolane-4-carboxaldehyde/crn

REGISTRY INITIATED

Substance data EXPAND from CAS REGISTRY in progress...

| | | |
|-----|---|---|
| E1 | 1 | 199999-61-6/CRN |
| E2 | 1 | 199999-85-4/CRN |
| E3 | 0 | --> 2,2-DIMETHYL-1,3-DIOXOLANE-4-CARBOXALDEHYDE/CRN |
| E4 | 1 | 200-22-6/CRN |
| E5 | 2 | 200-23-7/CRN |
| E6 | 1 | 200-25-9/CRN |
| E7 | 1 | 200-42-0/CRN |
| E8 | 1 | 200-61-3/CRN |
| E9 | 2 | 200-71-5/CRN |
| E10 | 1 | 200-75-9/CRN |
| E11 | 1 | 200-77-1/CRN |
| E12 | 1 | 200-86-2/CRN |

=> e 2,2-dimethyl-1,3-dioxolane-4-carboxaldehyde/cn
REGISTRY INITIATED
Substance data EXPAND from CAS REGISTRY in progress...

E1 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-ACETALDEHYDE/CN
E2 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-CARBONYL CHLORIDE/CN
E3 1 --> 2,2-DIMETHYL-1,3-DIOXOLANE-4-CARBOXALDEHYDE/CN
E4 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-CARBOXYLIC ACID/CN
E5 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-CARBOXYLIC ACID POTASSIUM SALT/
CN
E6 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-METHANAMINE/CN
E7 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-METHANOL/CN
E8 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-METHANOL (6-ISOCYANATOHEXYL) CAR-
BAMATE/CN
E9 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-METHANOL MONOESTER WITH DHA 22/
CN
E10 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-METHANOL MONOESTER WITH DHA 45/
CN
E11 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-METHANOL N-(7-CHLORO-4-QUINOLYL
) ANTHRANILATE/CN
E12 1 2,2-DIMETHYL-1,3-DIOXOLANE-4-METHANOL-POLYETHYLENE-POLYPROPY-
LENE GLYCOL GLYCEROL ETHER (3:1)-POLYMETHYLENEPOLYPHENYLENE
ISOCYANATE COPOLYMER/CN

=> s e3
REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L2 116 L1

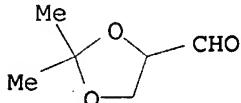
=> s 12 and (preparation and tempo)
1546114 PREPARATION
80455 PREPARATIONS
1622435 PREPARATION
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2844349 PREPN
210593 PREPNS
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(PREPN OR PREPNS)
3849942 PREPARATION
(PREPARATION OR PREPN)
4228 TEMPO
52 TEMPOS
5 TEMPI
3 TEMPIS
4272 TEMPO
(TEMPO OR TEMPOS OR TEMPI OR TEMPIS)

L3 2 L2 AND (PREPARATION AND TEMPO)

=> d ibib abs hitstr 1-2

L3 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:729816 CAPLUS

DOCUMENT NUMBER: 143:349015
 TITLE: Technical Production of Aldehydes by Continuous Bleach Oxidation of Alcohols Catalyzed by 4-Hydroxy-TEMPO
 AUTHOR(S): Fritz-Langhals, Elke
 CORPORATE SOURCE: Consortium fuer Elektrochemische Industrie GmbH, Wacker-Chemie GmbH, Munich, D-81379, Germany
 SOURCE: Organic Process Research & Development (2005), 9(5), 577-582
 CODEN: OPRDFK; ISSN: 1083-6160
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 143:349015
 AB Aldehydes were easily prepared from the corresponding alcs. in good to excellent yields by oxidation with tech. bleach and catalytic amts. of 4-hydroxy-2,2,6,6-tetramethyl-piperidine-1-oxyl (4-hydroxy TEMPO, HOT). Whereas the well-known batch process performed on laboratory scale is not suitable for the tech. synthesis especially of activated β -substituted aldehydes, this transformation can be performed continuously in a simple tube reactor. This layout meets all requirements necessary for the process, i.e., turbulent mixing of the biphasic mixture, removal of heat, short contact times, and high output. Thus, a single tube of 3 mm diameter renders about 60 mol of aldehyde per day.
 IT 5736-03-8P, 2,3-O-Isopropylideneglyceraldehyde
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (high yield tech. production of aldehydes by continuous oxidation of alcs. with bleach catalyzed by 4-hydroxy-TEMPO in tube reactor)
 RN 5736-03-8 CAPLUS
 CN 1,3-Dioxolane-4-carboxaldehyde, 2,2-dimethyl- (CA INDEX NAME)

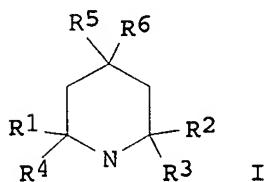


REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:395296 CAPLUS
 DOCUMENT NUMBER: 142:430492
 TITLE: Process for the preparation of glyceraldehyde acetonide from solketal via oxidation reaction
 INVENTOR(S): Quaedflieg, Peter Jan Leonard Mario; Alsters, Paulus Lambertus; Pojarliev, Peter; Jary, Walther Gunther
 PATENT ASSIGNEE(S): DSM IP Assets B.V., Neth.
 SOURCE: PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 2005040149 | A1 | 20050506 | WO 2004-EPI2064 | 20041025 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, | | | | |

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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 CA 2543303 A1 20050506 CA 2004-2543303 20041025
 EP 1678158 A1 20060712 EP 2004-817268 20041025
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
 CN 1875014 A 20061206 CN 2004-80031932 20041025
 JP 2007522097 T 20070809 JP 2006-537158 20041025
 IN 2006DN02387 A 20070803 IN 2006-DN2387 20060428
 US 2007129553 A1 20070607 US 2006-576447 20060714
 PRIORITY APPLN. INFO.: EP 2003-78392 A 20031028
 WO 2004-EP12064 W 20041025
 OTHER SOURCE(S): CASREACT 142:430492; MARPAT 142:430492
 GI



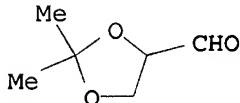
AB The invention relates to a process for the prepn. of glyceraldehyde acetonide I, wherein R1-R4 are independently alkyl with 1 to 6 C-atoms and wherein R5 and R6 either both stand for H or an alkoxy group with 1 to 6 C-atoms or one stands for H and the other stands for an alkoxy group with 1 to 6 C-atoms, an alkylcarbonyloxy group with 1 to 6 C-atoms, an arylcarbonyloxy group with the carbonyloxy group having 1 to 6 C-atoms or an alkylcarbonylamino group with 1 to 6 C-atoms; or wherein R5 and R6 together stand for ketal groups, by oxidation of 2,2-dimethyl-1,3-dioxolane-4-methanol by an oxidizing agent, wherein the 2,2-dimethyl-1,3-dioxolane-4-methanol is oxidized by an organic N-chloro compound in the presence of an inert base and TEMPO or a TEMPO-derivative. In one embodiment of the invention enantiomerically enriched glyceraldehyde acetonide is prepared from the corresponding enantiomerically enriched 2,2-dimethyl-1,3-dioxolane-4-methanol. Preferably, the organic N-chloro compound is trichloroisocyanuric acid or dichlorodimethyl hydantoin. Preferably, the inert base is sodium acetate or sodium bicarbonate. Thus, oxidation of (R)-solketal with trichloroisocyanuric acid in presence of TEMPO in acetone gave (S)-glyceraldehyde acetonide in 80% yield.

IT 5736-03-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (process for the prepn. of glyceraldehyde acetonide from solketal via oxidation reaction)

RN 5736-03-8 CAPLUS

CN 1,3-Dioxolane-4-carboxaldehyde, 2,2-dimethyl- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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|--|---------------------|------------------|
| FULL ESTIMATED COST | 15.97 | 24.36 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE
ENTRY | TOTAL
SESSION |
| CA SUBSCRIBER PRICE | -1.56 | -1.56 |

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